

CLAIMS

What is claimed is:

1. A vacuum packaging appliance for evacuating a container, said vacuum packaging appliance comprising:
 - a base defining an upper support surface adapted to receive an open end of said container;
 - a lid operatively associated with said base, said lid and said base defining a vacuum chamber there between to receive said open end of said container;
 - at least one gasket surrounding said vacuum chamber for directly engaging said container such that said open end of said container is operatively associated with said vacuum chamber;
 - a vacuum source operatively associated with said vacuum chamber for selectively evacuating said vacuum chamber and said operatively associated container; and
 - a vacuum latch for restraining movement of said base relative to said lid when said vacuum packaging appliance is in use.
2. A vacuum packaging appliance as recited in claim 1, wherein said vacuum latch includes a vacuum latch chamber.
3. A vacuum packaging appliance as recited in claim 2, wherein said vacuum latch chamber is formed in said lid.
4. A vacuum packaging appliance as recited in claim 2, wherein said vacuum latch chamber is formed in said base.

5. A vacuum packaging appliance as recited in claim 2, wherein said vacuum latch includes a latch gasket formed into said vacuum latch chamber such that said latch gasket forms a seal between said lid and said base when said lid and said base are engaged.

6. A vacuum packaging appliance as recited in claim 5, wherein said latch gasket is removable from said vacuum latch chamber.

7. A vacuum packaging appliance as recited in claim 5, wherein said vacuum latch is coupled with said vacuum source such that when said vacuum source is activated, said vacuum latch chamber is operatively associated with said vacuum source.

8. A vacuum packaging appliance as recited in claim 7, wherein said vacuum latch chamber is formed into said vacuum packaging appliance via a spring attachment thereby facilitating mating of said vacuum latch chamber in forming a seal.

9. A vacuum packaging appliance as recited in claim 5, wherein said vacuum latch is coupled to a second vacuum source.

10. A vacuum packaging appliance for use in evacuating a container, said vacuum packaging appliance comprising:

a vacuum source;

a base defining an upper support surface and including a trough, said upper support surface and said trough adapted to receive an open end of said container,

said trough useful for capturing liquids and contaminants removed from said container during operation of said vacuum packaging appliance;

a lid operatively associated with said base, said lid and trough defining a vacuum chamber there between to receive said open end of said container, said vacuum chamber operatively coupled with said vacuum source; and

a vacuum latch, distinct from said vacuum chamber, which through a vacuum latching mechanism tends to maintain a coupling of said base and said lid, as well as a vacuum integrity of said vacuum chamber, during operation of said vacuum packaging appliance.

11. A vacuum packaging appliance as recited in claim 10, wherein said vacuum packaging appliance further comprises a heat sealing mechanism arranged to heat seal said open end of said container.

12. A vacuum packaging appliance as recited in claim 10, wherein said trough is removable from said vacuum packaging appliance, thereby tending to ease emptying and cleaning of said trough.

13. A vacuum packaging appliance as recited in claim 12, wherein said trough coupled to said base via a tongue and groove such that a user may remove said trough by pulling said trough in a sliding motion out from said base.

14. A vacuum packaging appliance as recited in claim 13, wherein said trough has a handle for ease of pulling said trough from said base.

15. A vacuum packaging appliance as recited in claim 14, wherein said handle of said trough can be hidden behind a door in said base, said trough only removable when said door is open.

16. A vacuum packaging appliance as recited in claim 10, wherein said vacuum latch includes a vacuum latch chamber.

17. A vacuum packaging appliance as recited in claim 16, wherein said vacuum latch chamber is formed in said lid.

18. A vacuum packaging appliance as recited in claim 17, wherein said vacuum latch includes a latch gasket formed into said vacuum latch chamber such that said latch gasket forms a seal between said lid and said base when said lid and said base are engaged.

19. A vacuum packaging appliance as recited in claim 14, wherein said vacuum latch is coupled with said vacuum source such that when said vacuum source is activated, said vacuum latch chamber is operatively associated with said vacuum source.

20. A vacuum packaging appliance as recited in claim 14, wherein said vacuum latch chamber is formed into said vacuum packaging appliance via a spring attachment thereby facilitating mating of said vacuum latch chamber in forming a seal.

21. A vacuum packaging appliance for use in evacuating a container, said vacuum packaging appliance comprising:

a vacuum source;

a base defining an upper support surface and including a trough, said upper support surface and said trough adapted to receive an open end of said container, said trough useful for capturing liquids and contaminants removed from said container during operation of said vacuum packaging appliance;

a lid operatively associated with said base, said lid and trough defining a vacuum chamber there between to receive said open end of said container, said vacuum chamber operatively coupled with said vacuum source; and

a pair of side channel vacuum latches, distinct from said vacuum chamber, which through a vacuum latching mechanism tend to maintain a coupling of said base and said lid, as well as a vacuum integrity of said vacuum chamber, during operation of said vacuum packaging appliance, said side channel latches formed on opposing ends of said vacuum chamber, said side channel latches spring mounted onto said vacuum packaging appliance.

22. A method of operating a vacuum packaging appliance to evacuate a container, said vacuum packaging appliance having a lid and a base that must be engaged during operation in order to properly evacuate said container, said method comprising:

providing a vacuum source for evacuating said container;

coupling an open end of said container with said vacuum source thereby forming a vacuum circuit suitable for evacuating said container when said vacuum source is operating;

engaging said lid and said base in a manner intended to close said vacuum circuit; and

latching said lid and said base through the use of said vacuum source.

23. A method of operating a vacuum packaging appliance as recited in claim 22, wherein the act of engaging said lid and said base forms at least one vacuum latch chamber between said lid and said base.

24. A method of operating a vacuum packaging appliance as recited in claim 23, wherein the act of latching said lid and said base involves coupling said vacuum circuit to said at least one vacuum latch chamber and evacuating said vacuum latch chamber thereby forming a vacuum coupling between said lid and said base.

25. A method of operating a vacuum packaging appliance as recited in claim 22 further comprising evacuating said container through said vacuum source.

26. A method of operating a vacuum packaging appliance as recited in claim 25, wherein:

the act of engaging said lid and said base forms at least one vacuum latch chamber between said lid and said base; and

the act of latching said lid and said base involves coupling said vacuum circuit to said at least one vacuum latch chamber and evacuating said vacuum latch chamber thereby forming a vacuum coupling between said lid and said base.

27. A method of operating a vacuum packaging appliance as recited in claim 26, wherein said acts of evacuating said container and evacuating said vacuum latch chamber are performed substantially simultaneously.

28. A method of operating a vacuum packaging appliance as recited in claim 26, wherein said act of evacuating said at least one vacuum latch chamber is initiated prior to said act of evacuating said container.

29. A method of forming a hermetically sealed vacuum packaged container from an open container using a vacuum packaging appliance, said method comprising:

coupling an open end of said open container with a vacuum source of said vacuum packaging appliance thereby forming a vacuum circuit suitable for evacuating said open container;

engaging a lid and a base of said vacuum packaging appliance in a manner intended to close said vacuum circuit, said engaging said lid and said base forming at least one vacuum latch chamber between said lid and said base;

evacuating said at least one vacuum latch chamber, thereby vacuum latching said lid and said base in an engaged position;

evacuating said open container to form a substantially vacuum state within said open container; and

heat-sealing said open end of said open container thereby forming said desired hermetically sealed vacuum packaged container.

30. A method of forming a hermetically sealed vacuum packaged container as recited in claim 29, wherein said acts of evacuating said container and evacuating said at least one vacuum latch chamber are performed substantially simultaneously.

31. A method of forming a hermetically sealed vacuum packaged container as recited in claim 29, wherein said act of evacuating said at least one vacuum latch chamber is initiated prior to said act of evacuating said container.

32. A method of forming a hermetically sealed vacuum packaged container as recited in claim 31, wherein said act of evacuating said at least one vacuum latch chamber is substantially completed prior to initiating said act of evacuating said container.

33. A method of forming a hermetically sealed vacuum packaged container as recited in claim 29 further comprising the act of capturing a portion of any fluids evacuated from said open container in a trough located in said base of said vacuum packaging appliance.

34. A method of forming a hermetically sealed vacuum packaged container as recited in claim 29 further comprising:
sensing a vacuum level of said vacuum circuit.

35. A method of forming a hermetically sealed vacuum packaged container as recited in claim 34, wherein said container evacuation is not initiated until said at least one vacuum latch chamber is evacuated such that said vacuum circuit reaches a predefined vacuum level.

36. A method of forming a hermetically sealed vacuum packaged container as recited in claim 34, wherein said container evacuation continues until said vacuum circuit reaches a predefined vacuum level.

37. A method of forming a hermetically sealed vacuum packaged container as recited in claim 36, wherein said heat-sealing act is initiated automatically upon said vacuum circuit reaching said predefined vacuum level.